IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Appn. Number: 10/666,578
Filing Date: 09/17/2003
Applicant: Adam Awad
Examiner/ AU:
Application Title: APPARATUS AND METHOD FOR DISPENSING FLUIDS INTO AN AIR INTAKE
Agent Docket No.: Awad.A-08

PETITION TO MAKE SPECIAL MPEP 708.02 (VIII)

Mail Stop: Petitions
Commissioner for Patents
PO Box 1450
Alexandria, VA 22313-1450

Commissioner for Patents:

Pursuant to 37 C.F.R. Section 1.102(d) and M.P.E.P. 708.02 VIII (Accelerated Examination), Applicant hereby files this petition in the United States Patent and Trademark Office to make special the prosecution in the above-identified case. This petition is based on the grounds that the claims in this application are believed to be drawn to a single invention, namely, an apparatus (claims 1-16) and a method of using the apparatus (claims 17 and 18). However, if the Office determines that all claims presented are not obviously directed to a single invention, applicant will make an election, without traverse.

Applicant has conducted a pre-examination search in the following fields of search by class/subclass: 222/181.2; 134/20, 22.18, 57, 102.1, 102.2, 113, 169A; 123/6.26, 119, 134, 198A; 137/240, 888; and 239/542, 271, 547; ; and international classes B08B 9/00, 9/032, 3/08, 3/04, 7/00; F02B 77/00; F02M 1/16; B05B 15/00; and F02F 9/00. The relevant references found in this search are submitted herewith and are discussed below and it is pointed out with particularity, how the claimed subject matter distinguishes over these references. Based on the search results, it is applicant's opinion that all of the claims in this application are allowable.

Bird, U.S. Re. 16,425 and U.S. 1,565,778 each describes a hollow cylindrical chamber adapted to contain a chemical element having a means at the outer end of the chamber which

is adapted to admit air over the chemical element, said means comprising a removable threaded cap member, which is provided at its center portion with a threaded stem, and carries on its inner end a removable spring member, and a valve member disposed between the spring and the cap whereby the valve element may be adjustably tensioned against the under surface of the cap member. Bird teaches a container used for injecting fluids into a manifold, hose or pipe, but fails to teach a locking mechanism of the type described in the instant detailed description and claims, 1 and 13, and the apertures in the conical cap of claim 14 and the method of claims 17 and 18 which refer to the locking mechanism and the conical cap apertures.

Probst, U.S. 3,557,763 describes an apparatus for supplying an additive vapor into the fuel-air mixture of an internal combustion engine including a reservoir for a liquid solution including methanol. The reservoir is connected to the engine by a flexible conduit defining a suction line connected to the primary vacuum inlet of the engine. The reservoir includes an inlet conduit for bubbling air through the solution to produce a vapor in the upper reservoir chamber, which is drawn into the engine inlet through the suction conduit. A check valve in the suction line maintains the reduced pressure in the reservoir during times of increased pressure in the engine primary vacuum inlet. Probst teaches a container used for injecting fluids into a manifold, hose or pipe, but fails to teach a locking mechanism of the type described in the instant detailed description and claims, 1 and 13, and the apertures in the conical cap of claim 14 and the method of claims 17 and 18 which refer to the locking mechanism and the conical cap apertures. Probst teaches interconnection rather then insertion into the manifold.

Martin, U.S. 4,732,329 describes an irrigation dripper having a screw threaded shank terminating in a head. The shank is tapered and has an axially extending groove or slit formed on the shank, which in use is fitted in a hole formed in a pipe. Water from the pipe is discharged through the slit for irrigating plants. Martin teaches a container used for injecting fluids into a manifold, hose or pipe, but fails to teach a locking mechanism of the type described in the instant detailed description and claims, 1 and 13, and the apertures in the

conical cap of claim 14 and the method of claims 17 and 18 which refer to the locking mechanism and the conical cap apertures. Martin teaches a terminal aperture only.

Vataru et al., U.S. 5,097,806 and U.S. 5,257,604 describe a method of cleaning an internal combustion engine fuel injector structure, valves and combustion chambers, which employes a canister containing a liquid mixture that includes engine fuel and injector cleaning solvent. The method provides the steps of charging pressurized gas into the canister to a selected high-pressure level; communicating the interior of the canister with a passage extending to the injector structure and operating the engine to provide pressurized fuel discharge delivered to the passage; terminating operation of an engine fuel pump; continuing operation of the engine and flow of the mixture in the canister to the injector structure until the mixture in the canister depletes; and re-charging pressurized gas into the canister to a selected high-pressure level, and continuing flow of the mixture to the injector structure while the engine is running. This reference teaches a method used for injecting fluids into a manifold, hose or pipe, but fails to teach a locking step of the type described in the instant detailed description in claims 17 and 18 which refer to the locking mechanism and the conical cap apertures in the instant claims. Insertion of a conical cap is not considered in this reference.

Sunden, U.S. 5,727,514 describes an anti-corrosion fogging device for internal combustion engines, such as marine engines, including a system, which injects oil having anti-corrosive properties into the engine of a boat. The device may be applied to two cycle outboard motors as well as four-cycle engines. The system dispenses the anti-corrosive oil by means of an aerosol spray can permanently connected to a remotely controlled solenoid valve which through a hose supplies oil to a spray nozzle permanently installed on the engine. A user can, at will, dispense a controllable quantity of anti-corrosive oil into an internal combustion engine at the end of an operating cycle to protect the engine against corrosion during prolonged idleness. This reference teaches an apparatus used for injecting fluids into a manifold, hose or pipe, but fails to teach a locking step of the type described in the instant detailed description in claims 1 and 13, and does not teach the insertion of a conical cap as defined in claims 17 and 18 which refer to the locking mechanism and the conical cap apertures in the instant claims. Insertion of a conical cap is not considered in this reference.

Chen, U.S. 5,826,602 describes an improved process and apparatus for flushing carbon deposits and contaminants from fuel and air intake systems of an internal combustion engine. The process includes replacing the regular fuel supply with a mixture of fuel and a cleaning agent, operating the engine at idle speed and introducing another cleaning agent through the air intake system. The first and second cleaning agents can be of the same or different composition. By simultaneously introducing cleaning agents through the fuel supply system and the air intake system, the process combines the two cleaning agents on the surface area around the intake valves, the combustion chambers and other critical areas to remove stubborn carbon deposits. Chen fails to teach the conical cap, spiral threads, cap apertures and insertion of same into the passageway.

Sasaki et al, U.S. 5,970,994 and U.S. 6,073,638 each describes an apparatus and method for cleaning the intake system of an internal combustion engine, such as an automobile engine, employing intake manifold vacuum of the running engine to ingest and atomize a liquid cleaner using a bleed of ambient air. Atomizing of the liquid cleaner provides better dispersion of the cleaner to surfaces of the intake system of the engine, and prevents puddling of the liquid in low spots of the intake system. Sasaki et al teaches a conical cap but without the spiral thread, plurality of emitter holes and locking mechanism of claims 1, 13 and 14 and the related method of claims 17 and 18.

Wells, U.S. 6,178,977 describes a method and device for cleaning the components of an internal combustion engine. The device provides a single valve for regulating the flow and blend of air and cleaning fluid entering the combustion chamber of an internal combustion engine. The invention provides a novel device and process for cleaning mineral deposits from the surface of the combustion chamber, piston crown and intake ports, intake valves. The flow control valve is capable of regulating the flow of air and cleaning fluid into the combustion chamber of an internal combustion engine during the cleaning process. The device of the present invention connects two separate hoses to a flow control valve. The end of one of the hoses is placed within a reservoir of cleaning fluid. The end of the other hose is connected to vacuum port of an internal combustion engine. Thus, the device provides a path

for the cleaning fluid to pass from the reservoir through the flow control valve, through the vacuum port of the engine, through the intake manifold onto the combustion chamber, and out the engine's exhaust. This reference teaches a device used for injecting fluids into a manifold, hose or pipe, but fails to teach a locking step of the type described in the instant detailed description and in claims 1, 13 and 14, which refer to the locking mechanism and the conical cap apertures. Insertion of a conical cap is not considered in this reference.

Blatter et al., U.S. 6,530,392 describes a valve cleaning apparatus and method for transporting a cleaning fluid from a supply tank into the air intake valves of a combustion engine. It comprises housing having a pair of legs and a closed end. The housing has a flow path through the housing. A valve is located collinear with the flow path. The valve cleaning apparatus also includes tubing, a nozzle and a hook to hang the assembly from the hood of a car. This reference teaches a device used for injecting fluids into a manifold, hose or pipe, but fails to teach a locking feature of the type described in the instant detailed description and in claims 1, 13 the instant claims. Insertion of such a conical cap is not considered in this reference. The instant method of claims 17 and 18, which refer to these features is not covered.

Gatzke, U.S. 2003/0015554 describes a fluid-dispensing device attachable to an air-intake system of an internal combustion engine for introducing an engine cleaner composition into the air intake system. The invention also provides methods of cleaning internal combustion engines using the fluid-dispensing devices. This reference teaches a method used for injecting fluids into a manifold, hose or pipe, but fails to teach a locking step of the type described in the instant detailed description in claims 17 and 18, which refer to the locking mechanism and the conical cap apertures in the instant claims. Insertion of a conical cap is not considered in this reference.

Engine Fog, Inc., WO 95/28236 describes an engine cleaner composition and method for removing carbonaceous deposits from engine fuel-system components such as mechanical and electronic fuel injectors, intake valve seats, valves, combustion cylinders, spark plugs, and oxygen sensors that may be used on both gasoline and diesel engines. Preferred

compositions comprise a synergistic solution of a heterocyclic ring compound in an azeotrope of acetonitrile and water, together with selected surfactants and aromatics. Preferred compositions of the invention may be placed in an aerosol-pressurized unit utilizing a compressed gas, such as nitrogen or nitrous oxide, or compressed liquid gas, such as a hydrocarbon or fiuorohydrocarbon. Preferred engine-cleaning compositions of the invention are substantially non-ozone depleting, are low in global warming, and have a low order of human toxicity. Preferred compositions have a moderate pH and are essentially compatible with metals and elastomers conventionally used in engine fuel-system components. The invention provides a consumer or a professional engine mechanic with a safe, easy and efficient way to clean engine fuel-system components. This reference teaches an engine cleaning method and cleaner composition, but fails to teach a method for injecting fluids into a manifold, hose or pipe, using the locking mechanism of the type described in the instant detailed description and in claims 1, 13 and 14. The reference fails to tech the steps of claims 17 and 18 which refer to the locking mechanism and the conical cap apertures in the instant claims. Insertion of a conical cap is not considered in this reference.

In summary, in accordance with the above remarks, we find that the instant invention clearly distinguishes over the foregoing references found in our preliminary patentability search with respect to 35 USC 102. Additionally, we find that no combination of elements borrowed from these references, under 35 USC 103 could be construed to teach the instant invention with respect to the threaded conical cap, the plurality of cap holes arranged for faster and more uniform dispensing and the locking mechanism on the cap.

Check No. 1266 including an amount of $130.00 to cover the required fee for a 37 C.F.R. Section 1.102(d) petition, for a small entity, is enclosed herewith. Please advise if any additional fees are required, or overpayment refund due.

In view of the above, applicant hereby petitions that the above-cited application be made special and advanced for examination, and applicant advised thereof.

Very respectfully,

Gene Scott, 37,930 Agent of record

Please direct all communications to Customer Number 22197: Mr. Gene Scott, Patent Law & Venture Group, 3140 Red Hill Avenue, Suite 150, Costa Mesa, CA 92626-3440. Phone: (714) 668-1900; Fax: (714) 668-0583

CERTIFICATION

I hereby certify that this correspondence is being deposited with the United States Postal Service as Express mail in an envelope addressed to: "Mail Stop: Petitions, Commissioner For Patents, PO Box 1450, Alexandria, VA 22313-1450," on 11/4/03 date of deposit.

Signature: .

Person Mailing This Document